

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/856,836

DATE: 06/18/2001

TIME: 16:11:08

Input Set : A:\1242-14p.app

Output Set: N:\CRF3\06182001\I856836.raw

ENTERED

3 <110> APPLICANT: Vanderbilt University  
 4 Datta, Pran K.  
 5 Moses, Harold L.  
 7 <120> TITLE OF INVENTION: PURIFIED AND ISOLATED SERINE-THREONINE KINASE RECEPTOR  
 8 ASSOCIATED PROTEIN AND USE OF SAME IN THE MODULATION OF  
 9 THE BIOLOGICAL ACTIVITY OF TGF-BETA  
 11 <130> FILE REFERENCE: Attorney Docket No. 1242-14 PCT  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/856,836  
 C--> 14 <141> CURRENT FILING DATE: 2001-05-25  
 16 <150> PRIOR APPLICATION NUMBER: 60/111,668  
 17 <151> PRIOR FILING DATE: 1998-12-10  
 19 <160> NUMBER OF SEQ ID NOS: 2  
 21 <170> SOFTWARE: PatentIn Ver. 2.1  
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 56 Met Ala Met Arg Gln Thr Pro Leu Thr  
 57 1 5  
 W--> 59 tgc tgc ggc cac acg cgg ccc gtg gtg gat ntg gcc ttc agc ggc atc 160  
 W--> 60 Cys Ser Gly His Thr Arg Pro Val Val Asp Xaa Ala Phe Ser Gly Ile  
 61 10 15 20 25  
 63 acg cct tac ggc tac ttt ctg atc agc gct tgc aaa gat ggc aag ccc 208  
 64 Thr Pro Tyr Gly Tyr Phe Leu Ile Ser Ala Cys Lys Asp Gly Lys Pro  
 65 30 35 40

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69 45 50 55
71 cat aaa ggt gct gtt tgg ggt gca aca ttg aat aag gat gcc acc aaa 304
72 His Lys Gly Ala Val Trp Gly Ala Thr Leu Asn Lys Asp Ala Thr Lys
73 60 65 70
75 gct gcg aca gca gct gca gac ttc aca gcc aaa gta tgg gat gcg gtc 352
76 Ala Ala Thr Ala Ala Ala Asp Phe Thr Ala Lys Val Trp Asp Ala Val
77 75 80 85
79 tca gga gat gaa ttg atg acc ctg gct cat aag cac att gtc aag act 400
80 Ser Gly Asp Glu Leu Met Thr Leu Ala His Lys His Ile Val Lys Thr
81 90 95 100 105
W--> 83 gtg gat ttc aca cag gat agc aat tac ctg nta act ggg gga cag gat 448
W--> 84 Val Asp Phe Thr Gln Asp Ser Asn Tyr Leu Xaa Thr Gly Gly Gln Asp
85 110 115 120
87 aaa ctg ctg cgc ata tat gac ttg aac aaa cct gaa gca gaa cct aag 496
88 Lys Leu Leu Arg Ile Tyr Asp Leu Asn Lys Pro Glu Ala Glu Pro Lys
89 125 130 135
91 gaa atc agt ggc cac act tct ggt att aaa aag gct ctg tgg tgc agt 544
92 Glu Ile Ser Gly His Thr Ser Gly Ile Lys Lys Ala Leu Trp Cys Ser
93 140 145 150
95 gac gat aaa cag atc ctt tca gcg gat gat aaa act gtt cgg ctc tgg 592
96 Asp Asp Lys Gln Ile Leu Ser Ala Asp Asp Lys Thr Val Arg Leu Trp
97 155 160 165
99 gat cat gcc aca atg aca gaa gtg aaa tct ctg aat ttt aat atg tct 640
100 Asp His Ala Thr Met Thr Glu Val Lys Ser Leu Asn Phe Asn Met Ser
101 170 175 180 185
103 gtt agc agc atg gag tat att cct gaa gga gag att ttg gtt att act 688
104 Val Ser Ser Met Glu Tyr Ile Pro Glu Gly Glu Ile Leu Val Ile Thr
105 190 195 200
107 tat gga cga tct att gct ttt cat agt gca gta agt ctg gag cca att 736
108 Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val Ser Leu Glu Pro Ile
109 205 210 215
W--> 111 aaa tcc ttt gaa gct cct gcg acc atc aat tct gcg tct ntt cat cca 784
W--> 112 Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser Ala Ser Xaa His Pro
113 220 225 230
115 gag aag gag ttt ctt gtt gcg ggt gga gaa gac ttt aaa ctg tac aag 832
116 Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp Phe Lys Leu Tyr Lys
117 235 240 245
119 tat gat tat aac agt gga gaa gag tta gaa tcc tac aaa ggt cac ttt 880
120 Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser Tyr Lys Gly His Phe
121 250 255 260 265
123 ggt ccc att cac tgt gtg aga ttc agt cct gat ggg gaa ctc tat gcc 928
124 Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp Gly Glu Leu Tyr Ala
125 270 275 280
127 agc ggt tct gaa gat ggg aca ttg aga ttg tgg caa act gtg gta gga 976
128 Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp Gln Thr Val Val Gly
129 285 290 295
W--> 131 aag acc tat ggc ctg tgg aaa tgc gtg ntt cct gag gaa gac agc ggg 1024

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W--> 132 Lys Thr Tyr Gly Leu Trp Lys Cys Val Xaa Pro Glu Glu Asp Ser Gly
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      135 gaa ctg gca aag cca aag atc gga ttt cca gaa aca gca gag gaa gag 1072
      136 Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu Thr Ala Glu Glu Glu
      137          315          320          325
      139 ctg gca gaa gaa att gct tca gag aat tca gat tcc atc tat tca tca 1120
      140 Leu Ala Glu Glu Ile Ala Ser Glu Asn Ser Asp Ser Ile Tyr Ser Ser
      141 330          335          340          345
      143 act cct gaa gtt aag gcc tgagcatcag acgtgtgctg ccgaaacct 1168
      144 Thr Pro Glu Val Lys Ala
      145          350
      147 atgttcatgg actaaacaag cagagacaag catccgcctt cagagttact gtctgcctga 1228
      149 ggcaaagagg gcagaaaata ttggggcata tgagtttagct ccagtgcacg aacagctact 1288
      151 cagtgttgcc cgtgagtga aatggctgag tgtctgaggt gcaggcagga ggattgtgct 1348
      153 cacatagtgc catagcctgc tgtttggaat gaaaagccaa cttacaatct ccattttaca 1408
      155 cctaaatttc ttttagctgt ttatgttatg aagaagaaaa atatattggc ctatttttct 1468
      157 gactttccct taaagaagaa tgcctttttg tccttgccta gtgatgaaga ggaggaaata 1528
      159 catgataaag taaccggttt gatctctttc attgtacaag gactgcttca gaacagctca 1588
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      195          20          25          30
      197 Ile Ser Ala Cys Lys Asp Gly Lys Pro Met Leu Arg Gln Gly Asp Thr
      198          35          40          45
      200 Gly Asp Trp Ile Gly Thr Phe Leu Gly His Lys Gly Ala Val Trp Gly
      201          50          55          60
      203 Ala Thr Leu Asn Lys Asp Ala Thr Lys Ala Ala Thr Ala Ala Ala Asp

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Input Set : A:\1242-14p.app

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209	Leu	Ala	His	Lys	His	Ile	Val	Lys	Thr	Val	Asp	Phe	Thr	Gln	Asp	Ser
210				100					105					110		
W--> 212	Asn	Tyr	Leu	Xaa	Thr	Gly	Gly	Gln	Asp	Lys	Leu	Leu	Arg	Ile	Tyr	Asp
213			115					120					125			
215	Leu	Asn	Lys	Pro	Glu	Ala	Glu	Pro	Lys	Glu	Ile	Ser	Gly	His	Thr	Ser
216		130					135					140				
218	Gly	Ile	Lys	Lys	Ala	Leu	Trp	Cys	Ser	Asp	Asp	Lys	Gln	Ile	Leu	Ser
219	145					150				155					160	
221	Ala	Asp	Asp	Lys	Thr	Val	Arg	Leu	Trp	Asp	His	Ala	Thr	Met	Thr	Glu
222				165					170						175	
224	Val	Lys	Ser	Leu	Asn	Phe	Asn	Met	Ser	Val	Ser	Ser	Met	Glu	Tyr	Ile
225			180					185					190			
227	Pro	Glu	Gly	Glu	Ile	Leu	Val	Ile	Thr	Tyr	Gly	Arg	Ser	Ile	Ala	Phe
228			195					200					205			
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231		210					215					220				
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236	Gly	Gly	Glu	Asp	Phe	Lys	Leu	Tyr	Lys	Tyr	Asp	Tyr	Asn	Ser	Gly	Glu
237			245						250				255			
239	Glu	Leu	Glu	Ser	Tyr	Lys	Gly	His	Phe	Gly	Pro	Ile	His	Cys	Val	Arg
240			260					265					270			
242	Phe	Ser	Pro	Asp	Gly	Glu	Leu	Tyr	Ala	Ser	Gly	Ser	Glu	Asp	Gly	Thr
243			275					280					285			
245	Leu	Arg	Leu	Trp	Gln	Thr	Val	Val	Gly	Lys	Thr	Tyr	Gly	Leu	Trp	Lys
246		290					295					300				
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251	Gly	Phe	Pro	Glu	Thr	Ala	Glu	Glu	Glu	Leu	Ala	Glu	Glu	Ile	Ala	Ser
252				325					330					335		
254	Glu	Asn	Ser	Asp	Ser	Ile	Tyr	Ser	Ser	Thr	Pro	Glu	Val	Lys	Ala	
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## VERIFICATION SUMMARY

DATE: 06/18/2001

PATENT APPLICATION: US/09/856,836

TIME: 16:11:09

Input Set : A:\1242-14p.app

Output Set: N:\CRF3\06182001\I856836.raw

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
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L:60 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
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L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2